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CONTENTS

The desert locust situation 1954/55, by O. B. Lean 1

Rhizina inflata *associated with group dying of conifers in Britain, by James S. Murray* 6

Plant disease situation in the United States, by Paul R. Miller 7

Plant diseases in British Colonial Dependencies: a half-yearly report, by S. P. Wiltshire 11

Outbreaks and new records 12

Agalega Island
Canada
Denmark
United States

Plant quarantine announcements 14

Federal Republic of Germany, India, Mexico, Netherlands, Sweden, Zanzibar Protectorate

News and notes 16

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LEGISLATION ON FERTILIZERS IN LATIN AMERICA

FAO Agricultural Development Paper No. 50

A study prepared by the Legislative Service of FAO in collaboration with the Agriculture Division of FAO. Reviews legislative provisions in force in 14 Latin American countries. Special attention is given to *requirements* as regards manufacture, import and sale, *guarantees* to the purchaser, *inspection* and *control procedures*, and to penalties for infractions. In the second part of the study a comparison is made between legislation relative to the manufacture of and domestic trade in fertilizers in force in Latin America, and that of various European countries, the United States of America (including a model State Fertilizer Bill of that country) and Canada. The last part of the study deals with the essential elements of appropriate legislation on fertilizers having particular regard to the desirability of achieving uniformity in analytical methods and definition of the various nutrients contained in the fertilizer materials, so as to afford the maximum guarantees to the purchaser as regards the availability of such nutrients.

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FAO Plant Protection Bulletin

VOL. IV, No. 1 A Publication of the OCTOBER 1955

World Reporting Service on Plant Diseases and Pests

The Desert Locust Situation 1954/55

O. B. LEAN

Plant Production Branch, Agriculture Division, FAO

DEVELOPMENTS of the present desert locust plague to December 1953 and the measures taken to combat it were summarized in previous articles.[1,2] The desert locust was active throughout 1954 and 1955 and there are no indications that the plague, viewed as a whole, is on the wane. Whilst the previous articles recorded that the locust had caused no extensive crop damage, despite the expansion of the plague, very serious, though localized, damage was suffered during 1954 and 1955, particularly in north-western Africa.

Towards the end of 1953 there was a marked decrease in desert locust activity in the Eastern Zone of the invasion area, comprising India, Afghanistan, Pakistan and Iran. On the other hand the infestation in eastern and western Africa was particularly threatening and a severe invasion of north-west Africa was then forecast though no heavy attack actually occurred until a year later.

Developments in 1954

Early in 1954 the Arabian Peninsula was invaded by swarms derived from winter breeding on the Red Sea shores and in the Somali Peninsula. Widespread breeding, extending northwards into Jordan, Israel and Iraq, followed and despite control measures large numbers of spring swarms appeared between late April and June. Some of the immigrant winter swarms spread beyond Arabia to Iran, Afghanistan, Pakistan and India. Breeding also occurred in these countries though that in India was restricted.

During the same period other swarms from the Arabian Peninsula had moved westwards or south-westwards resulting in very heavy hopper infestations in British Somaliland, Somalia and southern Ethiopia and also in Kenya and Tanganyika.

In the summer the movements of the new swarms followed the normal seasonal pattern. Those from Arabia migrated into Africa, particularly the Sudan, but also to Egypt and Eritrea and some also concentrated in the south-west of the Arabian Peninsula. Many of the swarms reaching Africa moved westwards progressing through Chad, the Niger Colony and French Sudan to Mauretania which was reached in July 1954. To the east, Pakistan and India were again invaded.

Widespread breeding developed along the summer rainfall belt and was particularly serious in French West and Equatorial Africa, the Sudan, Ethiopia and Somaliland. The most significant result was a mass displacement of young swarms from tropical Africa to the north-west in October 1954. This movement led to an exceptionally intense invasion of French Morocco (Figure 1) where overwhelming crop damage was caused. Simultaneously many swarms were carried out over the Atlantic. The Canary Islands were heavily invaded whilst large numbers of dead locusts were reported floating in the sea as far north as Lisbon and some scattered locusts reached the Scilly Isles and Ireland. The invasion of North Africa spread through French Morocco, Algeria, Tunisia and Tripolitania resulting in very heavy spring breeding. Some swarms also reached north-western Egypt.

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[1] LEAN, O.B. 1952. The desert locust situation. FAO Plant Prot. Bull. **1**: 2–4.

[2] — 1953. The desert locust situation. FAO Plant Prot. Bull. **2**: 33–35.

Figure 1. Locust invasion of French Morocco in 1954.

Developments in 1955

In 1955 the situation in the Arabian Peninsula also became critical. Swarms derived from the summer breeding in the Central Zone bred heavily on the south-western coastal plains and the infestation extended gradually inland with the main 1955 spring breeding occurring across Arabia from east of Jeddah to Kuwait. Swarms produced during the summer breeding in the Eastern Zone invaded southern Iran and eastern Arabia.

In east Africa, owing to the failure of the 1954 autumn rains, the usual breeding did not occur in the Somali Peninsula and the swarms moved south-westward causing an invasion of, and subsequently heavy breeding from October to December in, Kenya and Tanganyika, with some swarms penetrating the Belgian Congo. Later a northward movement of swarms led to the invasion of Uganda and the Sudan and breeding spread through northern Kenya, eastern Ethiopia and the Somali Peninsula during April and May 1955.

Of the swarms produced by the 1955 spring breeding, those derived from the Arabian Peninsula moved mainly west and south invading the Sudan and northern Ethiopia including Eritrea. Countries to the north and east escaped invasion and the whole Eastern region remained relatively calm. In the Western region young swarms commenced to move across the Sahara in May. As a result of these two major movements, the summer breeding belt from Senegal and Mauretania to the Sudan was heavily infested by July from the west, this breeding area being more or less continuous with that in the Sudan and Ethiopia, which was affected from the east, and the Somali Peninsula which was attacked from the south. The first swarms of the 1955 summer generation had begun to appear by August in French

West Africa and the movement of swarms towards the North African territories began in September. By October some swarms had already reached Algeria, Spanish Sahara and Tripolitania.

It is not easy to summarize the intricate pattern of seasonal swarm movements, sequence of breeding and fluctuations in the intensity of the plague over the whole desert locust invasion area, but the above outline may serve to indicate how, during the period under review, the infestations throughout, from India to the Canary Isles, were interrelated. Secondly it shows that the plague remains at a critical level. Whilst at present the infestation is at a low level in the east, potentially serious locust concentrations remain in Africa threatening again directly north-west Africa and the Arabian Peninsula and indirectly all other areas.

International Campaigns

It is equally difficult to review adequately the preventative measures which have been conducted and which have proceeded without interval in one infected country or another. The present article therefore deals only with those international campaigns with which FAO has been directly concerned.

The previous article described how, as a result of a meeting convened by FAO at Damascus in November 1953, a program for international action in the Arabian Peninsula was initiated. Time proved too short to overcome all the practical and organizational difficulties affecting such a major collective endeavour, yet the results achieved in attacking the 1954 spring breeding in Arabia and especially the determination of so many countries to participate in the campaign encouraged the countries concerned and FAO to intensify their efforts.

The progress and results of the 1954 campaign was scrutinized at a meeting of the Coordinating Committee for the Control of the Desert Locust in the Arabian Peninsula, convened by FAO in Cairo in June 1954, and later by the Working Party on Desert Locust Control, convened by FAO in Rome in September 1954.

Anti-locust units from Egypt, Iraq, Jordan, Saudi Arabia, Syria, the United Kingdom, and the United States of America participated actively in the 1954 campaign. In addition, materials or services were provided by the governments of France, Iran, Kuwait and Turkey. France and the Sudan also contributed cash. The value of all governmental contributions was estimated at about US $ 230,000. FAO provided vehicles and equipment to the value of about US $ 100,000 and expended about US $ 65,000 towards operational costs. It is not a normal function of FAO to act in an operative capacity, nor to finance anti-locust campaigns. The Organization contributed to the 1954 campaign, and on an increased scale to the 1955 campaign, to help initiate and support the project during the early stages of this international program. It is, however, a normal rule for FAO to coordinate such work and in January 1954 a centre was established at Jeddah to integrate the work of contributing governments with that of the Saudi Arabian Government which at this time formed its first own anti-locust units.

The Working Party planned intensified operations in the Arabian Peninsula during the 1954/55 breeding season, and the results of the subsequent campaign, reviewed by the First Session of the FAO Desert Locust Control Committee (Rome, April 1955) and secondly by its Second Session (Bloudan, August 1955), showed a greatly increased overall efficiency. Despite very heavy breeding across the Arabian Peninsula great destruction of hopper bands was achieved in all operational areas. Where numbers of hopper bands were estimated, a total of over 75,000 bands were destroyed and in addition Saudi Arabian teams treated a gross area of 254,500 hectares and Iraqi teams destroyed bands covering 276 hectares.

The total cost of the last campaign amounted to about US $ 1,300,000. This expenditure was met by contributions from the following 16 governments and by the League of Arab States and FAO:

Bahrain	Pakistan
Egypt	Qatar
France	Saudi Arabia
India	Sudan
Iran	Syria
Iraq	Turkey
Jordan	United Kingdom
Kuwait	Yemen

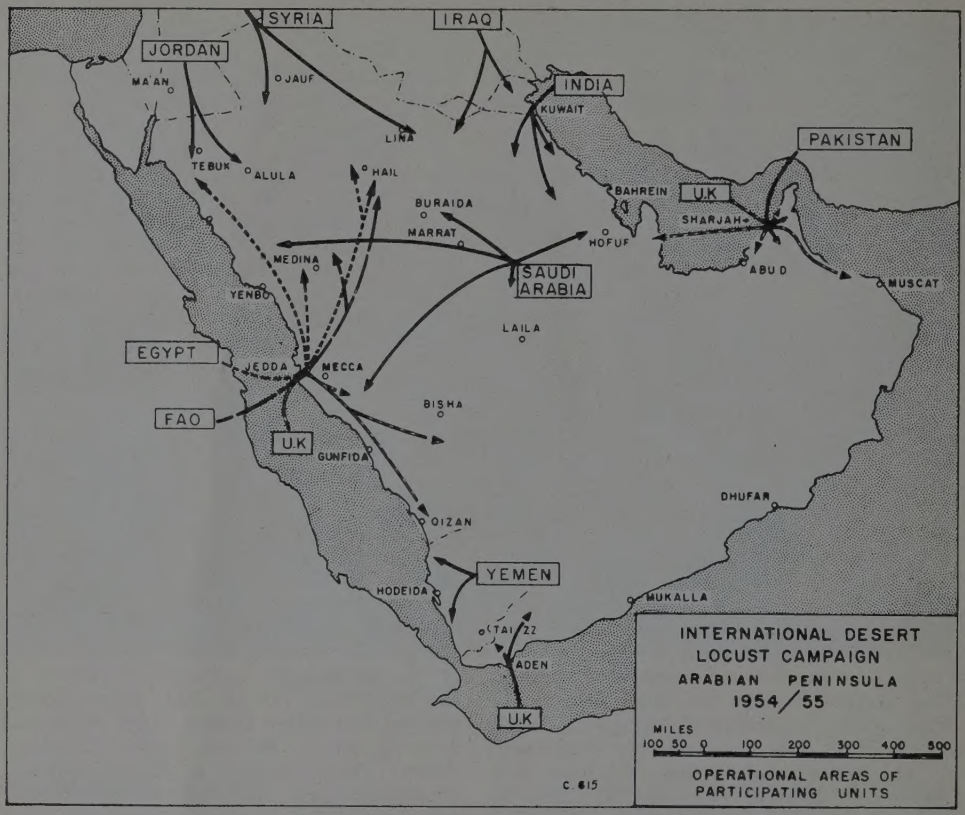

Figure 2. Map of the Arabian Peninsula showing the operational areas of the control units organized by ten countries and FAO in the anti-locust campaign, 1954/55.

A total of 47 locust control detachments were operated by Egypt, India, Iraq, Jordan, Pakistan, Qatar, Saudi Arabia, Syria, United Kingdom and Yemen as well as FAO in the Arabian Peninsula. Figure 2 shows the operational areas of the participating units and their inter-relations.

The value of FAO's contribution was over US$ 300,000 during the past season. Whilst FAO's contribution was thus greatly increased from that of the preceding season, it is particularly significant that Saudi Arabia itself raised its contribution from US$ 45,000 in 1953/54 to US$ 300,000 in 1954/55. During the past season FAO strengthened the staff at its coordinating centre at Jeddah to include a Senior Locust Officer, three Locust Officers and an Administrative Officer.

The continuance of the present desert locust plague requires increased vigilance and intensification of control measures. The Second Session of the FAO Desert Locust Committee prepared detailed plans for the 1955/56 international campaign in the Arabian Peninsula and estimated its cost at about US$ 1,500,000. Implementation of these plans is now in hand.

This article may suggest that FAO's interests in desert locust control is limited to the Arabian Peninsula. Whilst it has concentrated upon this important strategic area, the Organization continues to provide limited

material assistance elsewhere, e.g. Afghanistan, Ethiopia, Iran, Pakistan and Libya. It has also taken steps to intensify international co-operation in desert locust control in northern Africa and Ethiopia.

Preventative Policy

It is accepted that the present type of defence against the desert locust, which in the main succeeds in keeping plagues in check but which involves many governments in heavy recurrent expenditure, is not the rational answer to the problem. Plagues of other species of locusts have been prevented at source and it is hoped that eventually increased knowledge may permit a preventative policy of desert locust control to be put into effect. This approach to the problem received particular attention by the FAO Technical Advisory Committee on Desert Locust Control at its Fifth Session held in Damascus in August 1955 and, in an attempt to direct investigations to this end, FAO is inviting a panel of experts to prepare detailed proposals on the lines along which future work should proceed. Experience has proved that locust plague suppression can succeed only when supported by international co operation and there can be no doubt that to achieve plague prevention, co-ordinated international action will be equally essential.

Rhizina inflata Associated with Group Dying of Conifers in Britain

JAMES S. MURRAY

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GROUP dying has been known in Britain since about 1936 but the majority of cases have been reported since 1946. Trees tend to die in groups which extend for a number of years. In all observed cases the extension halts after this time. The roots are the parts affected, the crown symptoms of thinning needles and shortened increments being consequent on gradual death of the root system. When bark scales are lightly rubbed off an affected root, characteristic dark coloured dead patches can be seen in the cortical tissues.

Distribution and Hosts

The disease is found mainly in the west of Britain in numerous areas from Argyllshire to Somerset. It also occurs in Ireland.

All the earlier records concerned Sitka spruce (*Picea sitchensis* Carr.), but Norway spruce (*Picea excelsa* Link.) figured in some of the later ones. Recently the disease has been found in pure plantations of Japanese larch (*Larix leptolepis* Gord.), and European larch (*Larix decidua* Mill.). Also, individual trees of Scots pine (*Pinus sylvestris* L.), Corsican pine (*Pinus nigra* var. *calabrica* Schneid.) and (*Pinus contorta* var. *latifolia* Engelm.) have been killed in groups of Sitka spruce.

Possible Causal Agent

No pathogen could be generally associated with the disease until about 1953 when *Rhizina inflata* Fr. was seen to fruit often in the groups. No fructifications were found in 1954 but in 1955 the fruitbodies were abundant on the ground in groups and mycelium could be traced to the lesions on the roots. *Rhizina* occurred only in association with dead roots or groups.

As a result of a survey carried out in 1954 it was found that a high proportion of groups were associated with the sites of mealtime fires lit by workmen.

Experience in 1955 supported this. Several cases were found of the fungus fruiting vigorously on charred wood embers with trees adjacent, whose dying roots betokened an incipient group. The hypothesis from these observational data is that *Rhizina* can colonise a fire site and then attack roots from this point outwards so that a group is formed. Presumably the cessation of the group means that after some years the impetus derived from the presence of the charcoal is lost. The majority of cases of group dying have occurred after the first thinning stages in plantations when fires are generally lit. Many of the reports of *Rhizina* in the literature describe the occurrence of *Rhizina* on burned patches and in one forest in the east of England it is common for newly planted Corsican pine to be killed on the sites of fires where brash had been burned. *Rhizina* is common on such patches also.

Experiments are now in hand to test the pathogenicity of the fungus and the effect of fires in promoting the disease. If the hypothesis represents the whole story, control of fires should prevent further outbreaks of the disease.

Plant Disease Situation in the United States [1]

PAUL R. MILLER

Plant Disease Epidemics and Identification Section
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done 35 p. 466

Transmission of a Rubus Virus to Fragaria Vesca

EDWARD K. Vaughan and Harold W. Wiedman, of the Oregon Agricultural Experiment Station, report the transmission of a virus from red raspberry canes to *Fragaria vesca*. The raspberry plants from which the canes were taken were of the variety Washington and were affected by the virus disease known locally as "ringspot." [2] This disease is perhaps identical with the "decline" of Cuthbert red raspberry as described by Zeller and Braun,[3] "yellow blotch curl" as described by Chamberlain [4] in Ontario, and "yellow blotch" as described by Cadman [5] in Scotland. In July 1953, three stolons from each of two *F. vesca* plants of the East Malling strain were grafted to three individual infected raspberry canes. Six weeks after the grafts were made, the new foliage of both *F. vesca* mother plants developed a mottle somewhat like that caused by certain strains of non-persistent viruses. [6]

Similar mottling and conspicuous reduction in vigor appeared soon afterwards in the runner progeny. In this stage the disease resembled the commonly observed virus diseases of strawberry. The following spring, however, the infected plants developed very severe symptoms, including malformation of the flowers, sterility, and the production of numerous small plants on the fruit spurs. The symptoms are entirely different from those of any of the recognized diseases of either strawberry or raspberry.

This graft-transmitted virus has not been observed in strawberry fields and is not likely to be a virus component of described strawberry diseases. There does not seem to be any previous report of the transmission of a virus from *Rubus* to *Fragaria*.

Symptoms of Virus Ringspot and Related Disorders of Sweet Cherry in Idaho

A.W. Helton of the Idaho Agricultural Experiment Station writes that early in investigations on sweet cherry viruses, grouped thus far under the loose name "ringspot," there was indication that a fairly well stabilized relationship between varietal effects and virus strains could easily be determined. However, the more extensive the investigation, the more complicated the problem has proved to be. It now seems likely that environment will prove to be the decisive factor governing

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[1] This report is based upon material submitted by Collaborators of the Plant Disease Epidemics and Identification Section, Agricultural Research Service, United States Department of Agriculture.

[2] VAUGHAN, E.K., F. JOHNSON, R.E. FITZPATRICK, and R. STACE-SMITH. 1951. Diseases observed on bramble fruits in the Pacific Northwest. Plant Dis. Reptr. **35**: 34-37.

[3] ZELLER, S.M., and A.J. BRAUN. 1943. Decline disease of raspberry. Phytopath. **33**: 156-161.

[4] CHAMBERLAIN, G.C. 1938. Yellow-blotch curl: a new virus disease of the red raspberry in Ontario. Canad. Jour. Res. C. **16**: 118-124.

[5] CADMAN, C.H., and R.V. HARRIS. 1952. A lethal virus disease of Lloyd George raspberry in Scotland. Jour. Hort. Sci. **27**: 212-214.

[6] MELLOR, F.C., and R.E. FITZPATRICK. 1951. Studies of virus diseases of strawberries in British Columbia. II. The separation of the component viruses of yellows. Can. Jour. Bot. **29**: 411-420.

the virus strain and host relationships within this "ringspot complex" in stone fruits.

Field observations in Idaho dealing with ring spots and related disorders have revealed many symptom peculiarities. The following is a tentative description of virus and virus-like symptoms found in sweet cherry orchards.

Line pattern symptom. Many variations of a chlorotic line symptom occur. Often it is only a jagged line forming an otherwise symmetrical V-shaped pattern in the terminal portion of the leaf. In such cases the chlorosis usually is so pale that a successful photograph is extremely difficult to obtain.

The next most clearly defined symptom of this pattern is a pale chlorosis with lines often orientated in single or concentric circles (Figure 1). The arrangement is more randomized than that of the first type.

Occasionally a ragged line symptom is found in which the color is a bright yellow. Only rarely does this type approach a circle arrangement. It may occur on the same tree year after year, as is the case also with the two symptom types described above. The severity of all of these symptoms seems to vary with the season.

Another type often seen appears to be a blotchy cross between the line pattern and closed ring symptoms. It may look like a coalescence of broad and diffused lines or may show definite rings. Sometimes it is mild or moderately prominent, and sometimes it is severe and brightly colored.

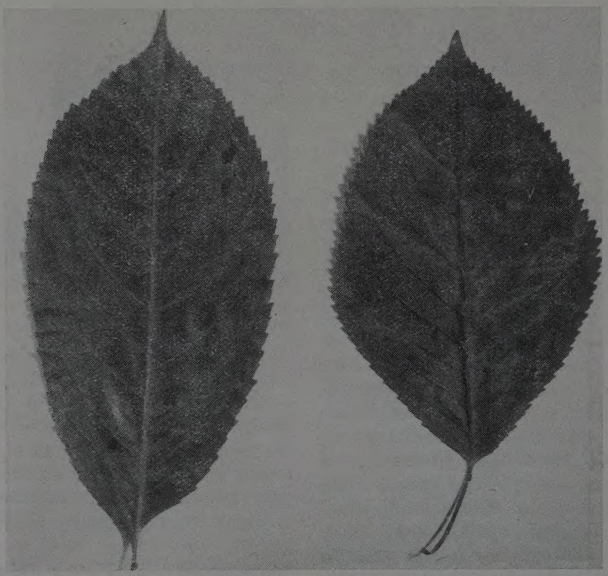

Figure 1. Line pattern symptoms on sweet cherry. The leaf to the left shows only slight discoloration; the leaf to the right shows pale chlorotic lines, some of which are orientated in single and concentric circles.

True ring spots. Circular ring patterns of several kinds are prominent in Idaho orchards but variation is so great that the closed circular ring is the only symptom characteristic common to all kinds.

Most of those ring symptoms are both chlorotic and necrotic. As illustrated in Figure 2, single and concentric chlorotic rings are most prominent. However, as the season advances, there is a tendency toward necrotic flecking in the chlorotic rings, and occasionally some shot-holing.

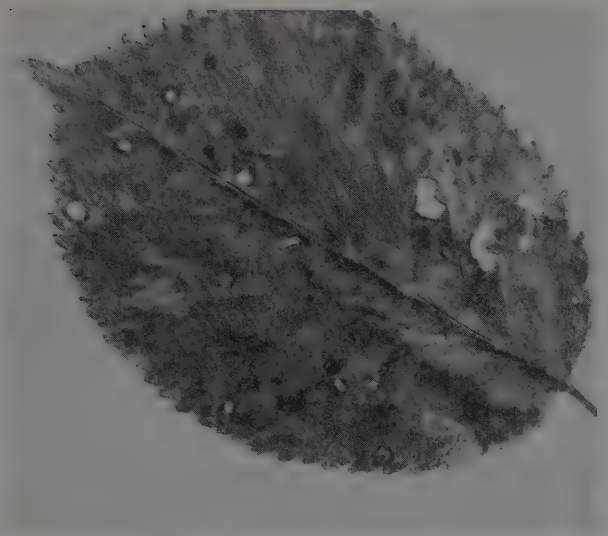

Figure 2. Chlorotic and necrotic ring spots on sweet cherry. Necrotic flecking develops in the chlorotic lines and eventually some shot-holing occurs.

Another type is characterized by very mild chlorotic rings which may be perfect or irregular circles, single or concentric. They are generally less constant in size and characteristic in shape than those illustrated in Figure 2 and may occur together with line pattern on the same leaves. The chlorosis is pale and inconspicuous and the symptom rarely affects an entire tree at one time.

A severe ring symptom in which the rings

Figure 3. Green ring mottle on Late Duke semi-sweet cherry.

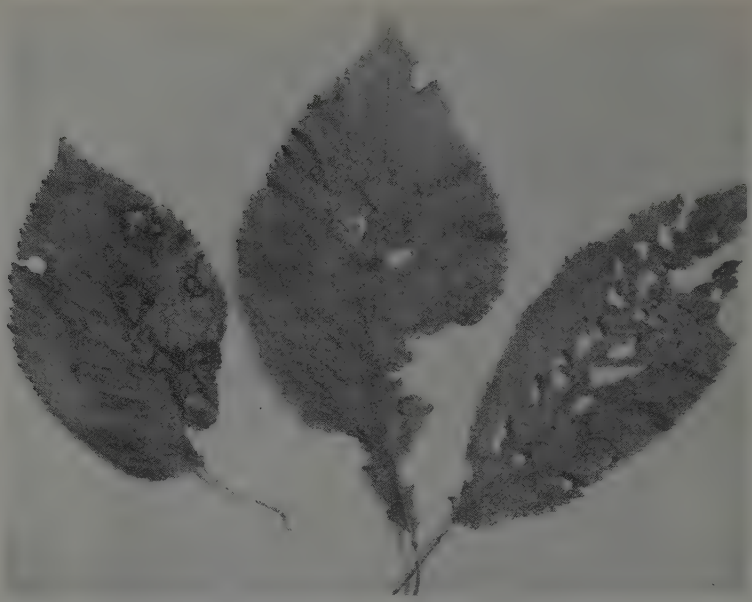

Figure 4. Tatter leaf symptoms on sweet cherry. Necrotic spotting of virus origin is shown in the leaf to the left. In the other two leaves are shown tatter leaf symptoms of obscure cause.

are entirely necrotic has also been observed. This is, apparently, a non-recurrent type, since symptoms have not been found again on affected trees the year after initial discovery. Necrotic flecks often are scattered randomly among the rings and shot-holing is rather common.

Typical "green ring mottle" is found in semi-sweet cherry orchards. It is similar to other ring symptoms, but in this case the rings are green on pale or yellow leaves (Figure 3) rather than chlorotic or necrotic on otherwise normally green leaves.

Tatter leaf symptoms. Many ragged leaf conditions are found in sweet cherry orchards. Sometimes insects or frost damage are responsible. Occasionally zinc deficiency seems to be the primary cause of necrotic spots on pale leaves and subsequent tattering. Other similar symptoms are found that are more difficult to explain.

In Figure 4 variously tattered leaves are illustrated, one of which shows serious necrotic spotting of a recurrent virus type that generally develops tattered leaves. The other two leaves show tattering of obscure cause, without prominent chlorosis or necrosis. Insects are sometimes involved, but not always.

Plant Diseases in British Colonial Dependencies: a Half-Yearly Report

S. P. WILTSHIRE

Commonwealth Mycological Institute, Kew, England

Malaya

SUDDEN death (*Valsa eugeniae*) and die-back (*Cryptosporella eugeniae*) are causing considerable damage in the clove plantations in Penang.

Red root disease of *Hevea* rubber (*Poria hypobrunnea*) was recorded for the first time from Malaya.

Fruit collapse of pineapple has been known in Malaya for many years but the bacterium causing the disease has now been isolated and its pathogenicity proved by inoculation tests. It has not yet been identified.

Diplodina lycopersici was recorded on tomato causing a leaf spot; *Curvularia maculans* on coconut associat d with a die back of the leaves of young plants; and *Nectria haematococca* on lime associated with a severe die-back and ? papaw associated with a fruit rot.

Mauritius

Maize rust (*Puccinia polysora*) was recorded in Rodrigues early in May 1955. The outbreak has spread to different parts of the island and has been very severe in some localities.

Trinidad

Cacao virus disease has only been found on one estate in the main cacao growing areas and a policy of cutting out contacts has been adopted in the hope of eliminating the disease by this means.

Bacterial wilt (*Pseudomonas solanacearum*) of bananas still continues to cause trouble chiefly on areas of poorly drained, heavy clay soils.

Black pod of cacao (*Phytophthora palmivora*) showed a marked increase as a result of heavy rains in November and December, 1954. Spraying trials for the control of the disease are in progress.

Outbreaks and New Records

Agalega Island

S. P. WILTSHIRE
Commonwealth Mycological Institute, Kew, England

Maize Rust: A New Record

MAIZE rust (*Puccinia polysora* Underw.) has been found on Agalega Island in the Indian Ocean, 500 miles north of Mauritius. The rust is known to occur in Mauritius and Reunion and also on Rodriguez Island. This fresh extension of the area of infection constitutes a definite threat to the Asiatic mainland.

For the known geographic distribution of this rust prior to 1 April 1954, reference should be made to the Distribution Maps of Plant Diseases N°. 237 (2nd edition), issued by the Commonwealth Mycological Institute.

Canada

C. G. MACNAY
Entomology Division
Department of Agriculture, Ottawa

Spread of European Corn Borer

Although the European corn borer, *Pyrausta nubilalis* (Hbn.), has been a major pest in Eastern Canada for many years, it was not recorded in Western Canada until 1949, when it appeared close to the international border in southern Manitoba and the south-eastern corner of Saskatchewan. Its recorded rate of increase and spread was moderate until 1954, when a survey revealed a considerable increase in numbers and distribution in both provinces. In Manitoba it had spread throughout the southern part of the province westward to Saskatchewan. Infestation of field corn in the Red River Valley ranged from 6 to 23 percent and of sweet corn from 4 to 35 percent. In Saskatchewan, infestations in sweet corn (*Zea mays*) were recorded as far west as Rockglen in the south-central agricultural part of the province and north to Kamsack in the east-central area. Excepting an isolated infestation at Saskatoon in 1953, the known boundary of infestation had extended 130 miles westward and 100 miles northward from that found in a survey in 1951. The percentage of infested corn in field and garden had increased from 1.8 in 1951 to 66.6 in 1954. The percentage of plants attacked in infested fields was generally less than one, but in the extreme south-eastern corner of the province it averaged 10 to 15.

Severe Outbreak of Army Cutworm

During May and June 1955, the army cutworm, *Chorizagrotis auxiliaris* (Grote), caused extensive damage in the Province of Alberta for the first time in about 12 years and in the Province of Saskatchewan it occurred in the most widespread and severe outbreak on record. In southern Alberta, several thousand acres of mustard and flax were destroyed, and barley and garden crops were extensively damaged. In south-western Saskatchewan, some 15,000 acres of wheat seeded on summer-fallow were attacked. Approximately 10,000 acres of this area were completely destroyed; the remainder was severely damaged. Some 3,000 to 4,000 acres of crop were sprayed and in these areas the extent of the losses will depend on the degree of crop recovery.

Denmark

ERNST GRAM
Statens Plantepatologiske Forsøg, Lyngby

Discovery of Dutch Elm Disease

Despite all efforts which have been made to prevent the introduction of the Dutch elm disease (*Ceratostomella ulmi*) by prohibiting the import of elm trees, this disease was observed during the middle of August 1955 for the first time in Denmark. Two elm trees, aproximately 40 years old, grown in an alley of a fruit farm in North Sjaelland, were found to be severely infected. The conidial stage of the causal fungus, *Graphium ulmi*, was isolated from infected branches which showed a brown discoloration of the wood characteristic of this disease. There was indication that a few other trees at the same place might also be infected.

Previously similar wood discoloration had been observed in trees suspected of disease infection, but the identity of the cause was never established until the case reported above.

United States

Plant Pest Control Branch
Agricultural Research Service
United States Department of Agriculture

European Corn Borer Taken on Cotton

Although the European corn borer, *Pyrausta nubilalis* (Hbn.), has been known in the United States since 1917 and has been recorded from a large variety of host plants, not until the 1955 season had it been recorded on cotton in this country under field conditions. In August, specimens were reported infesting cotton plants in Franklin County, State of Tennessee and in the south-east portion of the State of Missouri. The infestation in Tennessee involved only a small number of plants but in Missouri plant damage ranged up to 1.5 percent in infested fields. Larvae were also taken in young cotton bolls in Missouri.

Plant Quarantine Announcements

Federal Republic of Germany

A Ministerial Notification of 19 September 1955 cancels the prohibition on the importation of cut carnation during specified periods in 1955/56. Cut carnation flowers may be imported from Belgium, Denmark, Finland, Great Britain and Northern Ireland, Ireland, Luxembourg, Netherlands, Norway and Sweden up to 30 November 1955 and from 15 March to 30 November 1956, if they were actually grown in these countries. From other countries, importation will be permitted from 15 to 30 November 1955 and from 15 March to 14 April 1956. Each consignment must be accompanied by a phytosanitary certificate, indicating the origin of the consignment. If the produce has been disinfested by fumigation or any other means, the method of disinfestation, the chemical used, its concentration, the way of application and the time of exposure should be stated in the certificate or in a separate declaration. If the German plant inspection service finds that the consignments are repeatedly infested with living carnation tortricid (*Tortrix pronubana*), the exemption indicated above may be revoked.

Another Ministerial Notification of 19 September 1955 exempts flowers, buds, twigs and other fresh parts of woody plants for binding and decorative purposes from the prohibition on importation, from 15 November 1955 to 14 April 1956. If the produce has been disinfested, details of the treatment must be stated in the phytosanitary certificate required to accompany each consignment or in a separate declaration, as in the case of cut carnation. If the German plant inspection service finds such consignments being repeatedly infested by the San José scale (*Aspidiotus perniciosus*), this exemption may be withdrawn.

India

Notifications No. F. 6-22/54-Dte. 1 and No. F. 6-15/54-Dte. 1, issued by the Ministry of Food and Agriculture and dated 14 and 17 January 1955 respectively, amend the Rules for regulating the import of plants, etc., into India (Notification No. F. 320/35-A of 20 July 1936).

The first Notification prescribes that, in addition to hydrocyanic acid gas, methyl bromide or ethylene dibromide may be used for fumigation required for plants imported into India, other than fruits and vegetables intended for consumption, potatoes, sugar cane and unmanufactured tobacco.

The second Notification declares the port of Vishakapatnam as a "prescribed port" for importing plant materials into India, in addition to the ports of Bombay, Calcutta, Cochin, Dhanushkodi, Madras, Negapatam, Port Blair and Tuticorin.

Mexico

A Resolution of the Ministry of Agriculture and Livestock of 21 June 1955, published in the *Diario Oficial* Vol. 211, No 25, 29 July 1955, modifies Exterior Quarantine No. 5 (Decree of 27 January 1936). By this Resolution, Costa Rica is added to the list of countries and territories which are known to be infested by the Mediterranean fruit fly (*Ceratitis capitata*) and from which the importation of all fruits with soft pericarp and fresh vegetables are prohibited, except for the purpose of scientific study.

The countries and territories enumerated in Exterior Quarantine No. 5 are the Azores, Canary Islands, Portugal, Spain, France, Italy, Hungary, Greece, Malta, Cyprus, Turkey, Syria, Palestine, the African continent with its respective islands, Australia, Tasmania, New Zealand, Brazil, Argentina, Bermuda and Hawaii.

Netherlands

Decree No. 11.280/84 of 30 October 1954, published in the *Nederlandse Staatscourant* No. 211, 1 November 1954, provides that the storage and transport of imported seeds of wheat and flax for sowing, as well as of imported fruits of apple, cherry and prune, are allowed only on the condition that the packing is not opened before permission is given by an officer of the Plant Protection Service.

Decree No. JZ/L 14.553/84 of 26 September 1955, published in the *Nederlandse Staatscourant* No. 187, 27 September 1955, amends Decree No. 11,280/84 of 30 October 1954 by adding citrus fruits to the list of seeds and fruits specified therein.

Sweden

Royal Proclamation of 16 August 1955, published as *Svensk Författningssamling* No. 510 on the

same date, prohibits the importation of fruit, plants and other vegetable products included in the current lists of the statistics of commodities (List Nos. 85–152) but not included in the Importation of Plants Order of 6 March 1936, if they are found to be affected by diseases and pests enumerated in the 1936 Order. The Swedish Plant Protection Institute will examine the commodities held by the customs and may, in special cases and subject to conditions prescribed by the Institute, grant exemptions from the prohibition. Commodities not admitted into the country will be re-exported or forfeited.

Royal Proclamation of 16 August 1955, published as *Svensk Författningssamling* No. 511 on the same date, amends Article 1, section 2, of the Importation of Plants Order of 6 March 1936, to indicate that the importation of living plants and parts of plants from countries which have been declared infested by foot-and-mouth disease, potatoes, living plants of Ulmaceae, as well as in certain cases fruit and plants, etc., are governed by special regulations.

Zanzibar Protectorate

Plant Protection (Importation of Citrus) (Prohibition) Order of 11 December 1954, published in the Legal Supplement (Part II) to the Official Gazette Vol. 63, No. 6314, 18 December 1954, prohibits the importation into Zanzibar of citrus plants of any species or any part, fruit or seed thereof (other than in a manufactured state), except under and in accordance with a written permit issued by the Director of Agriculture.

This Order was promulgated as a precaution against the introduction of citrus bud mite (*Aceria sheldoni*) which has recently reached East Africa and is doing considerable damage in Kenya.

News and Notes

Regional Plant Protection Organization for Mexico, Central America and Panama

During the Conference of the Ministers of Agriculture of Mexico and Central America, held in San Salvador in 1953, an agreement to establish a regional agency for both plant and animal protection was signed by the seven participating governments, namely, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua and Panama. In accordance with this agreement, a regional organization, known as the *Organismo Internacional Regional de Sanidad Agropecuaria* (OIRSA), and as its governing body a committee, known as the *Comité Internacional Regional de Sanidad Agropecuaria* (CIRSA), have been established.

CIRSA, which is represented by the Ministers of Agriculture of the participating governments, met in its first session in Guatemala City, 7–11 July 1955. During this session the structure of OIRSA was determined and Ing. José de J. Castro of Guatemala was appointed as its first Executive Director for a term of two years. The seat of OIRSA will be at Managua, Nicaragua, for the first two years and will be rotated among participating countries afterwards.

CIRSA has also determined the problems which should receive primary attention by OIRSA, and those in the field of plant protection are as follows:

1. Locust control, in continuation of the work previously carried out by the International Committee of Coordination for Locust Control which had its headquarters at Managua. This work will be transferred to Honduras, because northern Honduras is at present the only area in the region currently affected by the locust plague.
2. Insect pests affecting pines, with special reference to bark beetles of the family Scolytidae.
3. Coffee diseases and pests, for the control of existing ones and for the prevention of new introductions.
4. Mediterranean fruit fly, with a view to concerted action for the eradication of the recent outbreak in Costa Rica and for the prevention of its further spread.
5. Survey of plant diseases and pests to get accurate information on their distribution and prevalence.
6. Unification of phytosanitary legislation to establish coordinated measures for the control of the import and export of plant materials.
7. Phytosanitary control at frontiers and ports, involving investigations on the procedures and facilities which will be required for inspection and treatment of imports and exports and advising governments accordingly.

In order to implement the decision of CIRSA with regard to plant and animal quarantine, OIRSA, in co-operation with the Inter-American Institute of Agricultural Sciences, will organize a short course for the training of quarantine inspectors. The course will begin in February 1956 at Turrialba, Costa Rica, and will include a period of training at some important ports in the United States.

ISO Meeting on Common Names for Pest Control Chemicals

The Technical Committee 81 of the International Organization for Standardization will hold its first meeting on 14-17 November 1955 in London, to co-ordinate and secure agreement on common names for chemicals which are widely used for the control of pests and diseases. It is aimed at satisfying a need for a ready means of identification in international trade and in scientific literature, without recourse to cumbersome chemical names or to proprietary trade names. The common names which have been standardized nationally in Denmark, France, the Netherlands, the United Kingdom and the United States will be taken into consideration as a basis for co-ordination.

For further information, enquiries should be made to the Secretariat of the Committee, British Standards Institution, 2, Park Street, London, W. 1, England.

Roma - Tip. del Senato del dott. Giovanni Bardi

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